

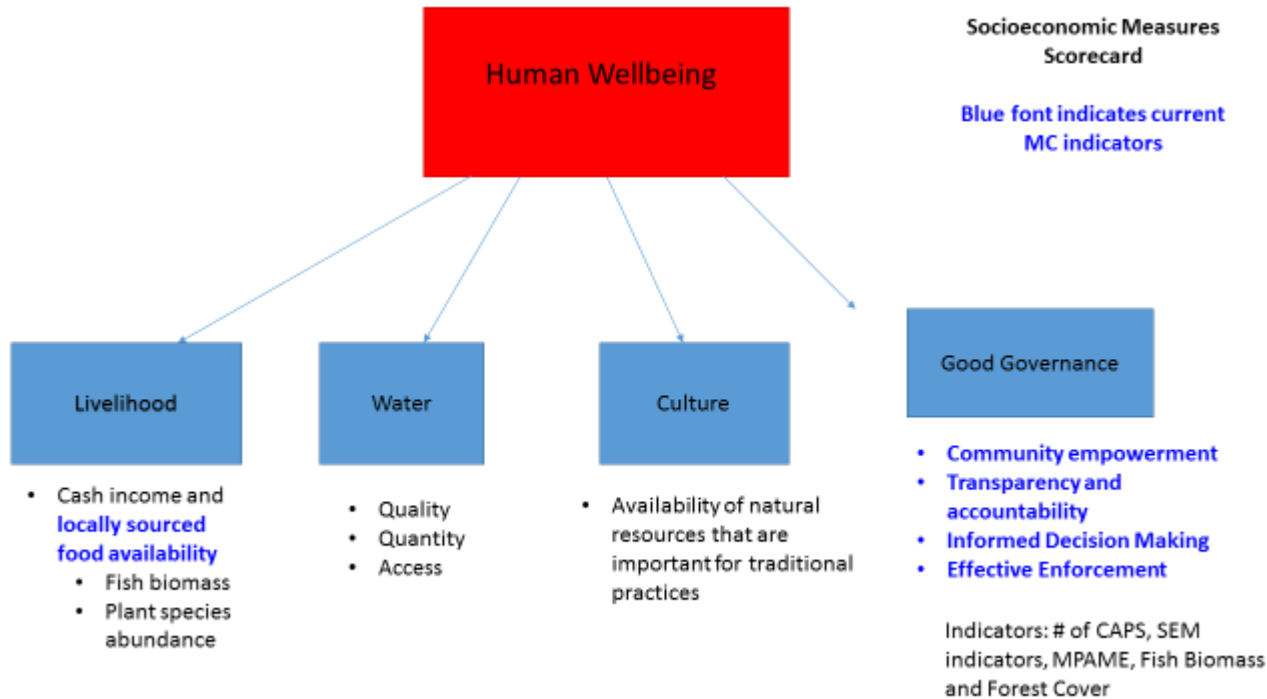
Micronesia Challenge Monitoring Protocols Summary

The Micronesia Challenge (MC) is focused on effective management of marine and terrestrial resources. To measure how effective management actions are toward achieving the biodiversity and socio-economic benefits intended to result from the Challenge, members of the MC Measures Working Group have been working to develop standardized measures that can be applied in all five jurisdictions. Previous to the start of this Cooperative Agreement, marine monitoring protocols were finalized and being implemented. Terrestrial measures were being tested and finalized. In Aug. 2012, a workshop was held that focused on agreeing upon socio-economic indicators for monitoring in support of effectiveness of the Micronesia Challenge. Workshop participants from the MC jurisdictions identified and agreed on three priority social well-being domains and indicator areas supported by MC efforts. MC SEM protocols were adopted at the MC Measures meeting held in June 2016. The indicators are currently being reviewed as they were modified in order to obtain the correct data for the SEM scorecard. See the scorecards below.

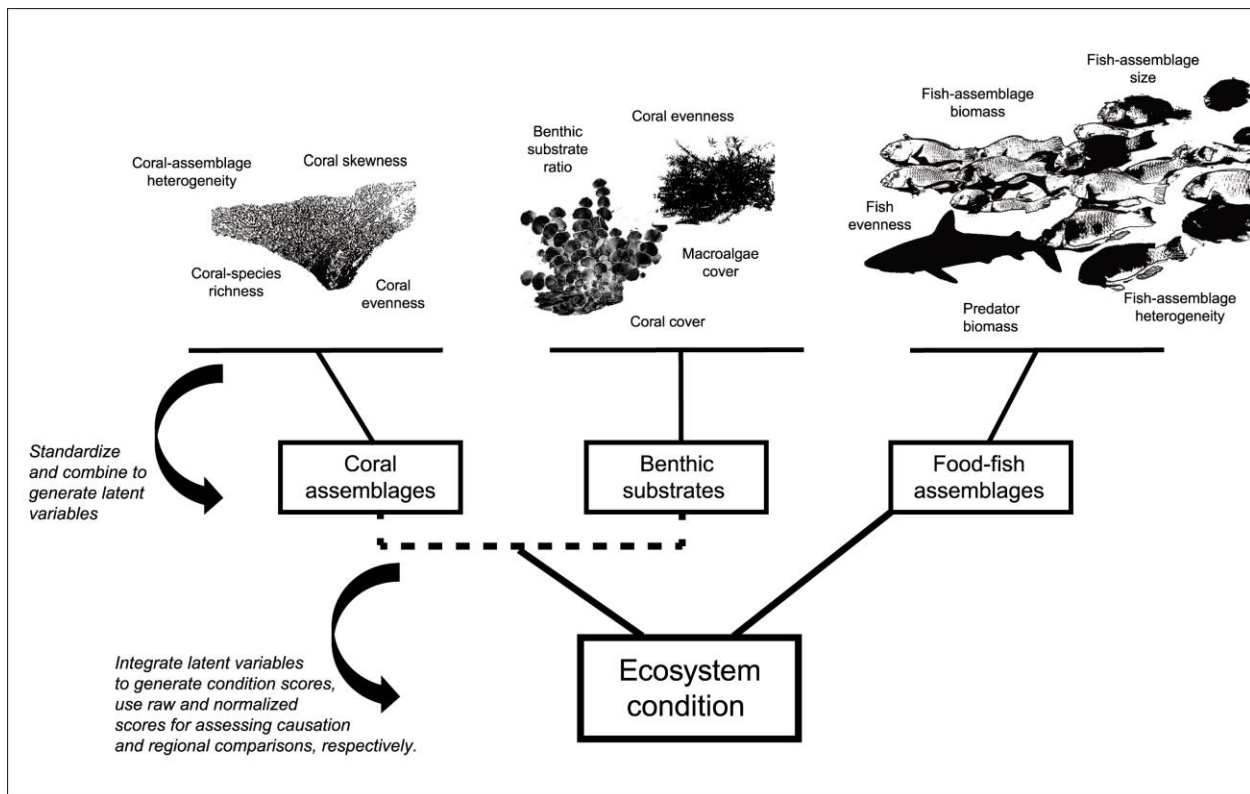
This report was supported by The Nature Conservancy under cooperative agreement award #NA13NOS4820145 from the National Oceanic and Atmospheric Administration's (NOAA) Coral Reef Conservation Program, U.S. Department of Commerce. The statements, findings, conclusions, and recommendations are those of the author(s) and do not necessarily reflect the views of NOAA, the NOAA Coral Reef Conservation Program, or the U.S. Department of Commerce.

Socioeconomic Measures Scorecard

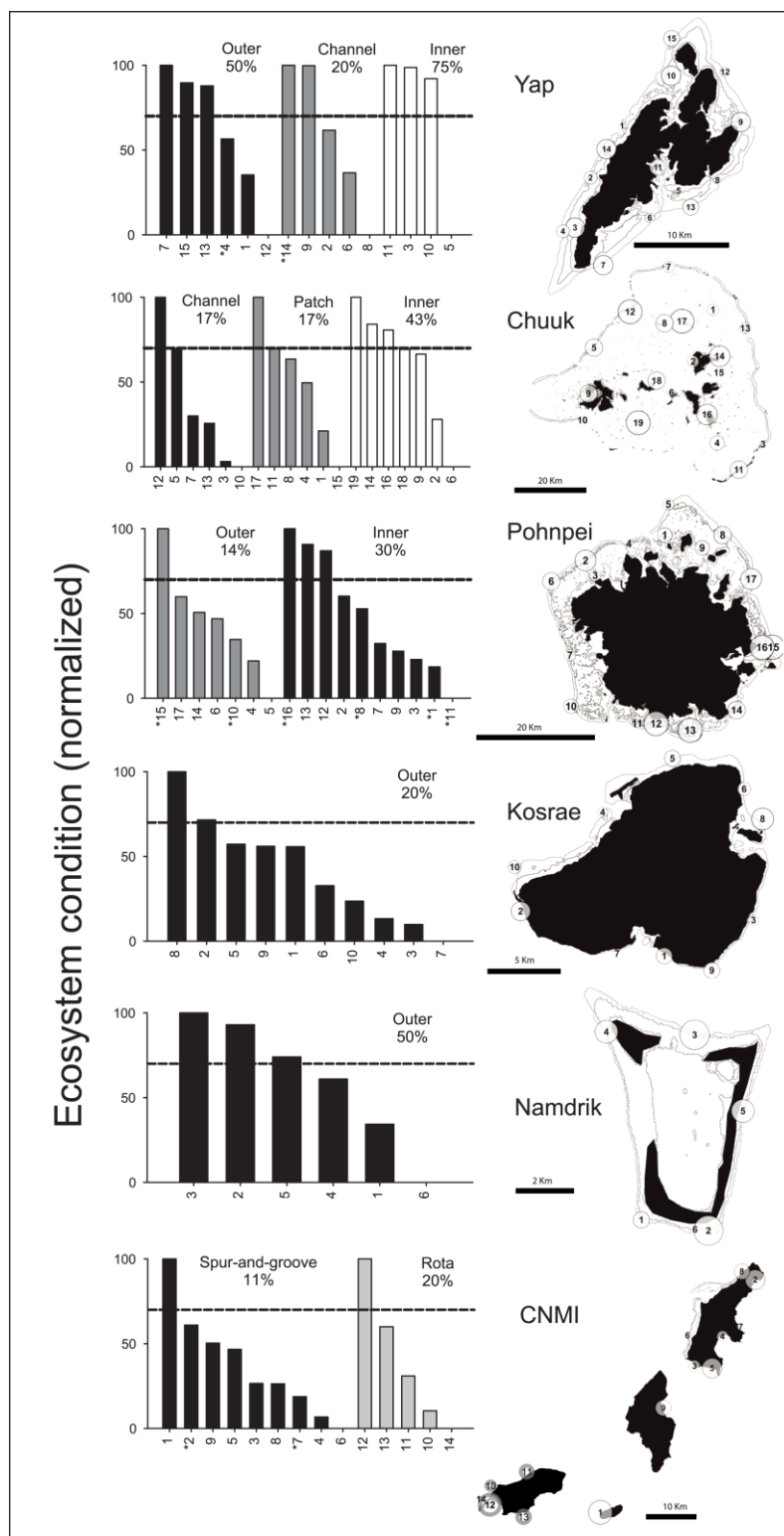
The MC Measures working group agreed that one of the main goals of the MC was to improve human wellbeing by better managing natural resources. The socioeconomic scorecard includes terrestrial, marine and socioeconomic indicators from the MC monitoring protocols to calculate a score for human wellbeing. This score will be at the jurisdictional level.



Marine Scorecard



Ecosystem condition evaluation process depicting the contribution of individual biological metrics on their respective latent variables, and the weighting of latent variables on overall condition scores. Source: Houk et al. 2015. The Micronesia Challenge: Assessing the Relative Contribution of Stressors on Coral Reefs to Facilitate Science-to-Management Feedback. PLoS ONE 10(6): e0130823.



This figure depicts normalized ecosystem-condition scores across Micronesia. Monitoring sites were stratified by reef habitat, management, geography, and/or wave exposure, as appropriate. Dashed lines depict the ‘effective-conservation’ threshold used to assess progress towards the Micronesia-Challenge conservation goals. Percentages indicate the proportion of sites currently above the threshold. Site-circle sizes on the maps adjacent to the bar graphs were scaled by their normalized ecosystem-condition scores. Marine protected areas are designated on the bar graphs

with an asterisk (*). The marine scorecard uses latent variables to generate ecosystem condition scores. This is the first round of the marine scorecard with data in it. And does not include Palau and Guam because the data was not available yet. Houk et al. 2015. The Micronesia Challenge: Assessing the Relative Contribution of Stressors on Coral Reefs to Facilitate Science-to-Management Feedback. PLoS ONE 10(6): e0130823.

Terrestrial Measures Scorecard

The terrestrial scorecard provides an overall score for forest health for each MC Jurisdiction based on the terrestrial measures indicators. Once more data is available the score will provide an idea of how forest health has changed over time.

